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PELE'S FERNERY.

BY CHARLES FESSENDEN NICHOLS, M. D., BOSTON, MASS.

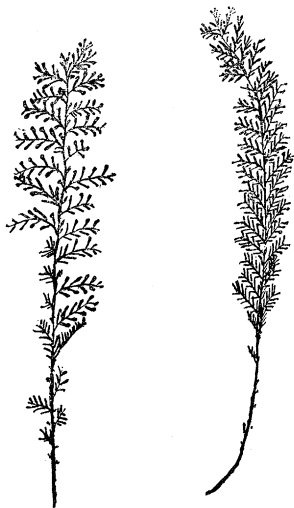
ONE Hawaiian morning, word was excitedly brought: "The cloud is off the pali and here are waiting Noo Loeloe (the Tired Lizard), Po Poki (Poor Pussy) and Wai Atlantika (the Atlantic Ocean), three merry natives all ready to climb the mountain, and why should not haoli (the outsider) join them? For it is but once in eleven years that Pele's cloud is off the pali.

Now who is Pele? And what is a pali? Any pali may become American soil and we ought to recognize it. The word simply means a high rock, or precipice, usually overhanging a mountain torrent; but Pele's pali, just here above the valley Waipio, enwrapped forever in the cloud which its great height attracts, is, with a considerable area of table-land, her own reserve. Superstition completely debars the natives from visiting this region; it is tabu ground,

"Death sure and swift awaits there,"

and nobody ever goes up to grope in the tangle of this beautiful cloud-garden of the very melodramatic goddess of Hawaii rei. To-day, however, so say these three natives, Pele withdraws her tabu. In compliment to the white haöli traveller, the secret-sacred, gray-fluffy cap, always hiding her white face* is, in part, removed.

Pele is the true ruler of Hawaii, not a queen or a princess to be bribed or pensioned dollarwise, goddess of infernal coquetry, of form so unstable that no idol has been fashioned for her worship, although she is held in such reverence as is given to no other, placable only when masquerading in some chaotic element, whose last footstep tossed molten lava, and who hides her rare garden where it finds its sunshine above the clouds.



Polypodium tameriscum, Hawaii.

Realizing then, O Lizard, Pussy and Wai Atlantika! that your tales are ever highly colored and that eleven days would, most likely, generously span the time wherein your mountain has lately remained under water (even a fish-story must come to the surface to breathe before its eleventh year), realizing all this, it is pleasant to know that the wind has changed, her trade-wind no doubt; such good fortune is not to be slighted, and so we will together ride to the pali.

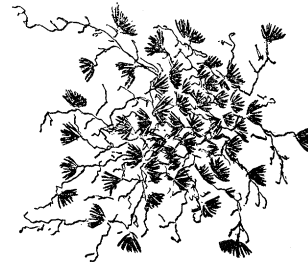
On unshod horses, lassoed from a neighboring rice-patch, we ride, with slight ascent, through long weeds and grass. Looking backward, the curious illusion prevails, often observed on an island, that the water below

appears to rise and confront us, as if we were lower than the sea whose lustrous furrows seem no deeper than warped surface of polished mahogany.

Birds are seldom seen on these islands, yet we can hear much twittering, as if made by little hidden birds. These birds are never captured "and if we were to see one," says Wai Atlantika, "we should be drowned." A few humming-birds are out to-day, and sand-mice, underground, make a noise between singing and chirping.

"Kauka" (Doctor), says Lizard, "it is time to be careful." Henceforth, at stated intervals, we dismount to place crisscross bunches (leis) of flowers and leaves, to propitiate the mountain deities (hoo-kupu).

Very safe it is to push aside the long weeds, seeking yams and ferns, for there are no snakes nor any other

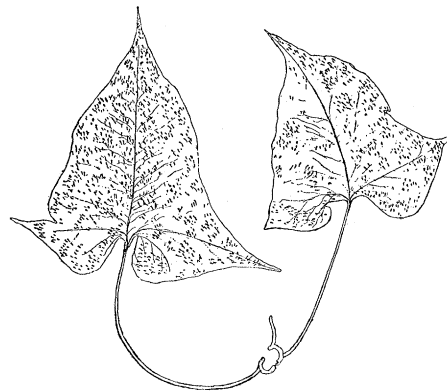


Trichomenes pervulum, Hawaii.

venomous reptilian life on beautiful Hawaii; very safe, while listening to the monotonous chant of my companions "Aloha lio loa" (praise to the big horse), to scoop the fingers through a brook for small fish, then eat them alive. The natives do not even chew their squirming captives!

"Kahuna," says Lizard (he means native doctor, witch-doctor, sorcerer, and now addresses the outsider as such by reason of our increasing friendship), "my mother buried five of us alive." "Why?" I ask. "To stop the volanco," replies Lizard.†

There is no trail. We pass cacti, sprawling in families like turtles, oval, ragged and dusty, some rampant and pugnacious, others on their backs. The hau tree (*Hibiscus tilaceus*), the banana, the ti (*dracena terminalis*), begonias and yellow blooms of the shrub ohenaupaka (*scævola glabra*) are seen in a maze of trailers, fungi and mosses.



Polypodium spectrum, above Waipio, Hawaii.

Fragrant wood-strawberries grow here and we may eat them with the slippery, sour guavas found on all sides. A valley to the right is completely overspread by nasturtiums of enormous leafage and the smallest possible blossom. Somewhat pathetic it is, this growth, so many years after its wrinkled seeds were planted by some New England missionary, not quite content with palmetto, ohia,‡

*Pele is represented fair and flaxen-haired. Tradition of northern voyagers visiting these islands deified them, taking note of their light complexion. Captain Cook and his sailors were worshipped, at first, as gods.

†Even at this time the burial of living children is not unknown on Hawaii. The writer remembers an old woman, seamstress in a mission family, who was supposed to have eaten several of her own children.

‡Ohia, the native apple (*Metrosideros polymorpha*).

orange and fern! And now, without frost to interrupt their progress, the nasturtiums have filled in, from edge to edge, this untrodden vale; the mass of vines is from twenty to fifty feet in depth and extends as far as vision reaches.

Tired Lizard proves to be chief chatterer; he is small, alert, shows white teeth, rides backward and stops at times to braid his horse's mane. My other companions, of the common stolid type, I remember now, only by their legs, so long that the two men seemed to stand over their small horses and could walk at option without dismounting.

Ferns abound here and we may fancy their existence to be most joyous; knowing their right to the soil, sure that they are loved in all the land, for their beautiful life is not essential to the cruel worship of any evil god, they fill every nook or hang above us infested by big spiders. A loquacious *Ophioglossum pendulum*, embraced and festooned by a graceful *piori* (*Smilax Sandwichiensis*), attracts attention. But, without separate enumeration, we are aware of *Blechnia Sadeleria cyatheoides*, *Davallia repens*, with varieties of *nephrodium*, *asplenium* and *pteris*.

Gradually quitting firm land, our horses stumble at times, and sink to their chests in the mud; the weeds topple and flatten where a mountain stream gurgles; on one side lies a treacherous quicksand into which bullocks may sink and perish. Here we repeatedly dismount to cut the vines and roots which wind about the legs of the tired



Vittaria elongata, Hawaii.

horses. Ever pushing aside the thicket as we force our way, we are drenched by the water-laden branches of the tall shrubs; a dash, as if from a dipper, is thrown from tree or skirmishing cloudlet until our clothes drip as if we had waded through a river. 'Tis a sanatorium quite controlled by hydropathy. Warmth and reeking moisture are omnipresent; a height which in other lands would be the realm of snow attracts here only mists ever condensing into shower, and clarified by rainbow-sunshine. Under these conditions an enormous fernery is created where growths which could nowhere else mature revel undisturbed, unless the rarely veering wind stir for a moment the habitual quietude. Here the light clouds hesitate, touching the treetops, the soft wind bears no aroma but that of the mountain dews, earthy, evanescent, soothing. It is, indeed, the heart of the marvelously beautiful region to which we have aspired.

Ferns, where their life has full sway, invade earth and

air alike. *Gleichenias* travel, emulating the banyan and throwing out rootlets wherever their stalks touch the ground. Such as are parasites climb over one another, surmount the vast undergrowths, sway from tall trees and profit by their larger outlook—plagiarists and sycophants at very heart—to steal almost indiscriminately from the thousand forms outspread below. Again quitting their highest points of observation, charmed by the varied shapes which grow beneath, clinging and swinging downward, these marauders now steal the prettiest forms they spy. *Polypodium spectrum* outlines an oak leaf, *Pteris decipiens* miniatures the leaf of the rock maple, *Polypodium tamariscum* resembles the tamarind leaf, *Vittaria elongata* is indistinguishable from grass. Like the recognized imitation, or resemblance, on the part of certain birds, insects and many animals, of the leaves and trunks of the trees near which they dwell, these fern-counterfeiters often confuse the naturalist. The glass only detects fernship in many of the pretty parodists, revealing, on edge or surface of the leaves, their fine spores. Detection is often difficult (particularly in the case of *Polypodium spectrum*) except during the brief period of fruitage.

Tethering the horses, the natives now begin to place between thin pieces of wood the ferns we find. All will be fastened firmly together while the specimens are still fresh, before we go down the mountain. To collect ferns is to search, to shout, to be hungry, to wallow, to climb into far, wild places, until certain shy lives are, as it were, pressed into the service of science, receiving in captivity Latin names.

Polypodiums which, on the volcano, develop to fruitage in a few days, but are stunted, in the hot lava cracks, to a height of three or four inches, here exhibit long and graceful fronds. We find *Polypodium pellucidum*, *P. pseudogrammaticum*, and *P. hymenophylloides*, natives only at these islands. *Pteris decora* and *Naratia Douglassi* grow here only. The "Fanny fern" appears to be a *hymenophyllum*.* These, with many others, are found. An *Asplenium enatum* supports numerous young plants of its own variety which have enrooted themselves on the stems and leaves of the parent fern.

Wandering along the edge of the pali we see, on the low trees, charming pink shells. There are many varieties of these land-shells in the forests of the tropics, and a collection has been made and catalogued from Oahu, Maui and Hawaii.

The precipice drops, not very abruptly, about four hundred feet. Half way down, a great tree has fallen. Somewhat piteous and helpless the tree appears, devoured and ornamented by orchids, selaginellas, lycopodiums and pendant mosses, while every notch and gnarled limb supports parasitic ferns; among them are seen *Trichomanes parvulum* and the microscopically small *Hymenophyllum lanceolatum*, a pulpy mass with delicate projecting leaflets.

A giant pulu, the tree fern (*Cibotium Chamissoi* from which the natives gather the silky material with which they fill their beds),—this vigorous growth has forced upward an immense mass of earth upon which nestles the birdnest fern (*Asplenium nidus avis*, throwing its vast leaves about as if to invite auks or phoenix to establish a nest here in Pele's service. It is now that Lizard wishes he could discover the secret cave of Umi, a great warrior said to be buried beneath this pali.

We look upward, seeking the little white rag which has been tied upon one of the horses for a beacon. A deluge of rain is pouring upon it from Pele's terrible forehead, signal for scramble, remounting and retreat.

Thus we saw her fair garden when the goddess was not at home; her soft cloud swept in and Pele's pali is but a memory, so intangible I could believe it a dream, were it not for my album.

*To Prof. Daniel C. Eaton, who kindly arranged my collections, I am indebted for the classification of these ferns.